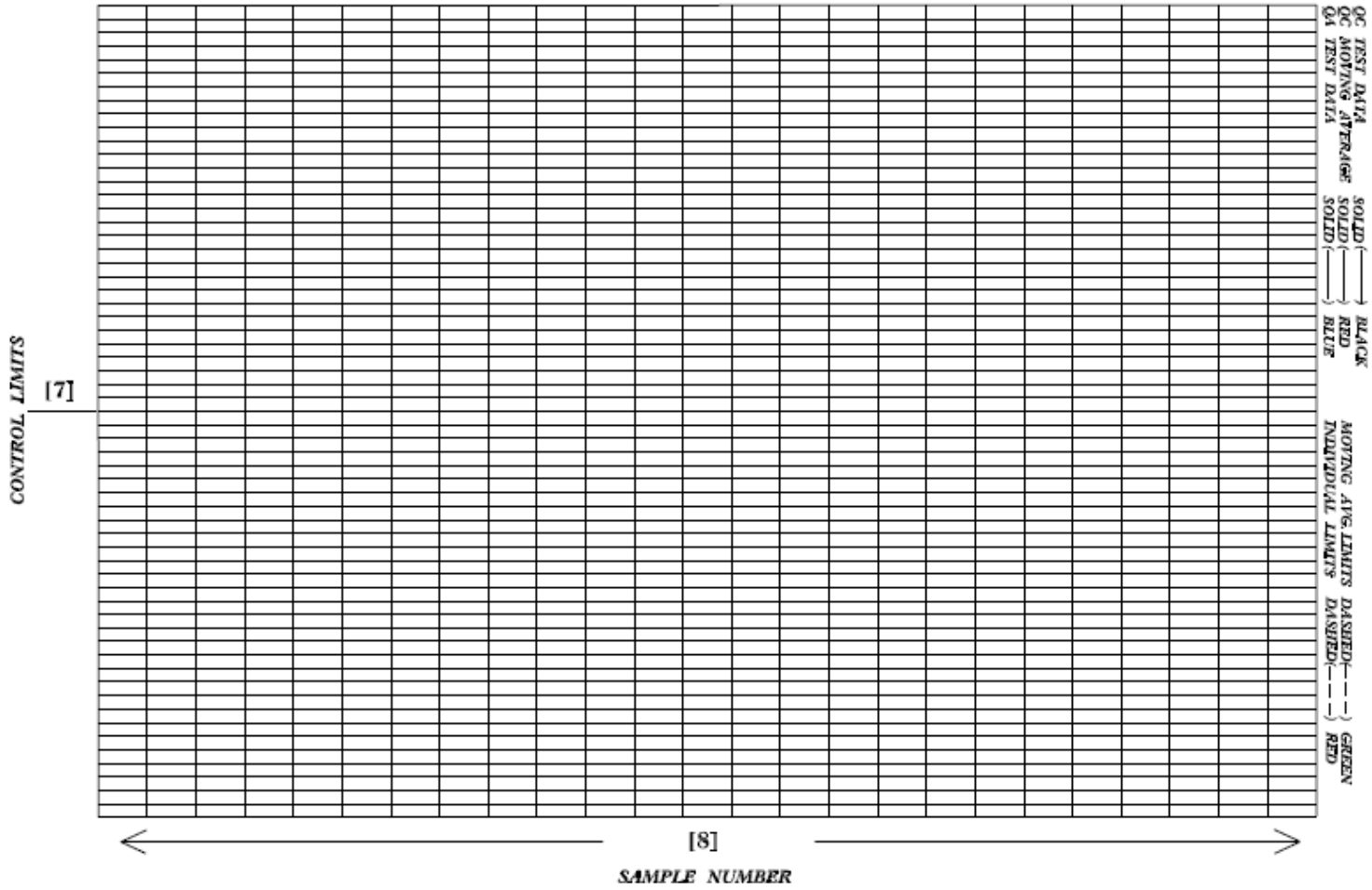
QAQC-6
01-01-08

NCDOT
HOT MIX ASPHALT QUALITY CONTROL CHART

YEAR [1]

TYPE MIX: [2] CONTRACTOR: [3]

JMF NO. [4] PLANT LOCATION: [5] MIX PARAMETER: [6]



NOTE: THIS FORM TO BE MAINTAINED FOR EACH MIX DESIGN AT QC LAB SITE AND UPDATED ON A DAILY BASIS.

* BY PROVIDING THIS DATA UNDER MY SIGNATURE AND /OR HiCAMS CERTIFICATION NUMBER, I ATTEST TO THE ACCURACY AND VALIDITY OF THE DATA CONTAINED ON THIS FORM AND CERTIFY THAT NO DELIBERATE MISREPRESENTATION OF TEST RESULTS, IN ANY MANNER, HAS OCCURRED.

* PRINT QA /QC TECHNICIAN'S NAME w/HiCAMS#: [9]

* QA /QC TECHNICIAN'S SIGNATURE: [10]

QA/QC-6

HOT MIX ASPHALT QUALITY CONTROL CHART

GENERAL NOTE: Control charts shall be maintained by QC personnel at the QC Lab Site during production. Control charts shall be plotted and maintained for each mix design produced at each plant site on a daily basis. Different JMF numbers based on the same mix design may be plotted on one graph, provided the JMF change location is noted. The following mix parameters shall be plotted on these control charts: Aggregate washed gradation (for each mix type, one sieve size smaller than the mix nominal maximum size, and for all mixes, the 2.36mm and 0.075mm sieves); % binder content, P_b (control method only); Gyratory bulk specific gravity, (G_{mb}); maximum specific gravity, (G_{mm}); % air voids, (VTM); voids in mineral aggregate, (VMA); $P_{0.075}/P_{be}$ Ratio; and $\%G_{mm}$ @N_{ini}.

Both the individual test value and the moving average of the last four (4) data points will be plotted on each chart. The QC's individual test data will be shown in black and the QC moving average in red. The QA's comparison split sample test data will be plotted in blue at the same location on the chart as the comparable QC results. The QA verification test data shall be plotted in purple and should be plotted at a location on the chart as close as possible to where other relative QC test data is located. The moving average limits shall be drawn with a dash green line and the individual test limits with a dash red line. These control charts may be computer generated by use of the current NCDOT spreadsheet. Forms to be maintained in the QC lab files for a period of three (3) years after completion.

1. Calendar year for data plotted.
2. Mix Type represented on chart.
3. Contractor producing mix.
4. Applicable job mix formula number.
5. Site of plant producing mix (Shown on JMF).
6. Mix parameter being tested, such as % binder, Gyratory bulk specific gravity (G_{mb}), etc.
7. Appropriate mix parameter target value will be placed adjacent to dark center line.
   Moving Average and Individual Limits will be plotted as described in second paragraph above. The control limit increments scale may be established by personnel plotting data, but should be such that information is legible.
8. Enter appropriate sequential QC sample numbers at each line increment.
9. QA or QC Technician's printed name and HiCAMS certification number. This should be the technician verifying that the data plotted is true and correct, which may or may not be the technician that actually plotted the data.
10. QA or QC Technician's signature certifying that all data entered on this form is true and correct.